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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Mats Sabelstrom

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EXAMINER

RODRIGUEZ, PAMELA

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/710,619	Applicant(s) SABELSTROM ET AL.	
	Examiner Pam Rodriguez	Art Unit 3683	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 December 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. The remarks filed December 27, 2007 have been received and considered.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-7, 11, 13-16, 18, and 19 are rejected under 35 U.S.C. 102(b) as being anticipated by WO document number 95/33631 to Heinzelmann et al.

Regarding Claim 1, Heinzelmann et al disclose a device for controlling or regulating total auxiliary brake torque in a motor vehicle (see Figure 1) having all the features of the instant invention including: transmission components (i.e., at least the transmission and transmission shaft present in the disclosed vehicle) coupled to an engine and at least two drive wheels, at least one auxiliary brake 30 and at least one second auxiliary brake 28 that is different from the first (i.e., a separate and distinct component which stands on its own), the second auxiliary brake 28 being a retarder (see the translated abstract); and a control system (see Figure 1) for controlling the first and second auxiliary brakes and in which information on characteristics of the auxiliary brakes and at least one predefined limit value V_s for maximally permitted auxiliary braking torque are stored (see the translated abstract), the control system being

configured so that if the predefined limit value V_s is exceeded, the control system effects an adjustment to the magnitude of braking torque imposed by the retarder 28 (see the last two lines of the translated abstract).

Regarding Claims 2 and 3, Heinzelmann et al further disclose that the adjustment of the magnitude of braking torque imposed by the retarder 28 is either a turning down or a moderation of the magnitude of braking torque imposed by the retarder (note: since the magnitude of the braking torque of the retarder is controlled so that the instantaneous speed does not exceed the reference speed/predefined limit value, it can be said that this control would have to be effected by either the turning down or the moderation of the magnitude of the braking torque to achieve this required deceleration).

Regarding Claim 4, from the last two lines of the translated abstract, it appears to follow that each of the auxiliary brakes 28 and 30 can be controlled individually to regulate braking torque, so then it would follow that if the retarder 28 is not sufficient to get below the limit value V_s , then the control system could also then effect an adjustment to the braking torque of first auxiliary brake 30.

Regarding Claims 5 and 6, see Claims 2 and 3 above, where the same logic would apply to the first auxiliary brake magnitude adjustments.

Regarding Claims 7 and 16, see the translated abstract which discloses that one of the auxiliary brakes could be an engine brake.

Regarding Claim 11, note that in essence at least the output of the transmission which could have a lowest torque capacity at some point during its operation and which

ultimately controls the instantaneous speed of the vehicle, would determine the predefined limit value of instantaneous velocity at least to some extent. In other words, the output of the transmission effects overall vehicle speed and this vehicle speed is what is used in the reference to control the braking torque.

Regarding Claim 13, see the translated abstract.

Regarding Claim 14, see Claims 1-3 above.

Regarding Claim 15, see Claim 4 above.

Regarding Claim 18, see auxiliary brakes 30 and 28, both being retarders, wherein the control system (see Figure 1) is set up to turn down or moderate the second auxiliary brake 28 (or any of the auxiliary brakes for that matter) if the limit value V_s is exceeded (see Claims 2 and 3 and the last two lines of the translated abstract).

Regarding Claim 19, see Claim 11 above.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation

under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

6. Claims 8-10, 12, 17, and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over WO document number 95/33631 to Heinzelmann et al.

Regarding Claim 8, Heinzelmann et al disclose most all the features of the instant invention as applied above, except for the first auxiliary brake being an Integrated Starter Generator.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have constructed the first auxiliary brake of Heinzelmann et al to be an Integrated Starter Generator as a matter of design preference dependent upon the desired type of auxiliary brake to be used in the system. As long as the component can perform a braking function, the type of auxiliary brake used to do so is arbitrary.

Regarding Claims 9 and 10, Heinzelmann et al disclose most all the features of the instant invention as applied above except for the second auxiliary brake being either a hydrodynamic retarder or an electromagnetic retarder.

Along the same lines as Claim 8, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have constructed the second auxiliary brake of Heinzelmann et al to be either a hydrodynamic or an electromagnetic retarder as a matter of design preference dependent upon the desired type of auxiliary

brake to be used in the system. As long as the component can perform a braking function, the type of auxiliary brake used to do so is arbitrary.

Regarding Claim 12, Heinzelmann et al disclose most all the features of the instant invention as applied above, except for a torque-measuring device coupled to the control system fitted to the transmission component having the lowest torque capacity.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have included a torque measuring device into the system of Heinzelmann et al as an alternate means of providing a more accurate way of determining the predefined limit value.

Regarding Claim 17, see Claims 9 and 10 above.

Regarding Claim 20, see Claim 12 above.

Response to Arguments

7. Applicant's arguments filed December 27, 2007 have been fully considered but they are not persuasive.

Applicant's main point of contention with the outstanding office action is that his present invention accounts for the "weakest link" in the system (in terms of braking – torque-carrying capacity of various components) and that this is encompassed by recitation in the claims of a predefined limit value for maximally permitted auxiliary brake torque, which predefined limit value is stored in the control system. Applicant contends that Heinzelmann has nothing to do with accommodating the weakest link in the braking system. Rather Heinzelmann discloses a cruise control system in which different

components are controlled to maintain a velocity V_s that is registered upon shifting the vehicle to a "coasting condition". Because the speed V_s is set when the vehicle switches to a coasting condition, and because the coasting condition can be entered at a myriad of different speeds, V_s is not a predefined value. Applicant goes on to contend that setting the vehicle speed to some value V_s does not set brake force/torque, as the examiner contends. Rather brake force/torque needed to maintain the vehicle's speed at a given value will vary as a function of various vehicle parameters. Thus, applicant asserts that contrary to the examiner's position, Heinzelmann does not disclose or concern itself with predefined limit values for maximally permitted auxiliary brake torques and thus does not anticipate the claimed invention.

In response to this, the examiner contends that applicant's remarks are more specific than the claim language. The examiner contends that the variable V_s is still readable as a predefined limit value and thus is also capable of setting brake force/torque. With regards to the Heinzelmann reference, while not specifically stated in the reference, his utilization of speed as a determining factor for braking in essence also regulates brake torque in the vehicle. Heinzelmann discloses that the first and second auxiliary brakes 30 and 28 are controlled by using this vehicle speed/predefined limit value V_s . And as stated in the PCT abstract of Heinzelmann, the auxiliary devices 30 and 28 are controlled (i.e., their braking torques/forces would also be controlled) by using vehicle speed parameters. Thus, the V_s measurement would establish a limit value on the brake torque by regulating the operation of the auxiliary brakes so as not to exceed a certain speed for the vehicle. Thus, while the examiner recognizes that the

gist of applicant's invention is based on the regulation of torque capacity for the vehicle in the instance of auxiliary braking, the claim language does not adequately reflect this.

It is for these reasons that the rejections have been maintained.

Conclusion

8. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Pam Rodriguez whose telephone number is 571-272-7122. The examiner can normally be reached on Tuesdays 5:30 AM -4 PM and Wednesdays 5 AM -11 AM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rob Siconolfi can be reached on 571-272-7124. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 3683

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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03/04/08